



MULTISCALE APPROACHES TO COGNITIVE PROCESSES AND BEHAVIOUR



12h15

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Collective problem solving by ants (and humans)

Longhorn crazy ants are highly efficient at joining forces to collectively move objects much too heavy for any single individual. However, simply getting a load to move is not enough as the ants' goal is to deliver this load to their nest. Furthermore, natural environments are typically complex such that the finding an available route often requires a cognitive effort on the level of the group. In this talk, we will discuss the navigational problem solving skills of ant groups as well as their relation to individual cognition and the number of ants in the group. We will do this through three specific cognitive puzzles: binary choice, the ant in a labyrinth problem, and the piano moving problem. For the latter puzzle, we can explore a direct comparison between the collective capabilities of crazy ants and another of the rare species to conduct group transport: us humans.



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